

KENTUCKY DEPARTMENT OF EDUCATION

STAFF NOTE

Review Item:

Update on Mathematics Initiatives, Jefferson County's GE Foundation College Bound District Program and Mathematics Intervention Models Funded through the Mathematics Achievement Fund

Applicable Statute or Regulation:

KRS.158.842 (Committee for Mathematics Achievement); KRS 158.840; KRS 158.844 (Mathematics Achievement Fund); KRS 164.525; KRS 158.6451

History/Background:

Existing Policy. Over the course of the past two Kentucky Board of Education meetings, the Board has heard presentations about mathematics initiatives in place around the state to improve mathematics achievement. In October, the Board heard a presentation from the Committee for Mathematics Achievement and the Kentucky Center for Mathematics. In December, KDE staff presented an overview of mathematics initiatives, including the implementation of the primary mathematics intervention grants under the Mathematics Achievement Fund (KRS 158.844).

At this Board meeting, Board members will view a brief video showcasing the work in several of the Mathematics Achievement Fund schools. Additionally, staff from the Jefferson County Schools will brief the Board on a mathematics initiative from a local district perspective.

Jefferson County Initiative. On September 26, 2005 Jefferson County Public Schools (JCPS) was awarded a four-year, \$25 million grant from the GE Foundation to improve student achievement in mathematics and science and increase the number of students who ultimately attend college. The four-year grant will also support a comprehensive school/business/community collaboration to close achievement gaps. The identified goals of the project are:

- 1) To increase the percentage of students scoring proficient or above on the Kentucky Core Content Test (KCCT);
- 2) To reduce the achievement gaps to meet NCLB goals; and
- 3) To increase the percentage of graduates enrolling in college from 64% to 71% over the four-year implementation.

The College Bound District Program is designed to use “research to identify challenges, empower teachers, enrich curriculum and elevate solutions.” Listed below, with a brief description, are the six program components for the College Bound District Program.

Constituency Engagement: Forming and nurturing collaborative relationships among board of education, central administration, teachers' association, principals, parents, community members, local officials and GE leaders. Jefferson County Public Schools constituency engagement goals include:

- a) Developing a community vision that world-class achievement in mathematics and science by all students will equal success in the global economy;
- b) Increasing awareness, interest and motivation for mastery in mathematics and science for students;
- c) Ensuring community support to help students achieve world-class standards in mathematics and science; and
- d) Enlisting broad-based community support to achieve the goals.

Management Capacity: Developing capacity for sustainable growth by supporting leadership and improving management operations through data-driven decision making. The project will utilize the managerial strength of GE to improve the managerial capacity and effectiveness of the school district.

Curriculum Strategies: Implementing a common, research-based mathematics and science curriculum. Activities include:

- a) World class standards in mathematics and science
 - Reduce topics in elementary school mathematics by 27%
 - Reduce middle school mathematics topics by 46%
 - Reduce high school mathematics topics by 2%
 - Develop standards that align with Japanese topics, Singapore topics and the American Diploma Project
 - Develop, in collaboration with Pearson Achievement Solutions, new teacher manuals, student textbooks and instructional resources for mathematics to be field tested in the 2007-08 school year
- b) Common Core curriculum in mathematics and science
 - Reduce the number of courses in mathematics and science
 - Reduce the number of textbooks used in the 150 Jefferson County Public Schools
- c) On-going assessments
 - Frequent checks of student learning
 - Monitor district progress
 - Develop common end-of-unit tests
 - Develop common end-of-year tests
- d) Interventions
 - Identify mathematics and science programs that provide additional instruction
 - Adapt the intervention program, Successmaker, to be used at the schools with the largest number of struggling students in mathematics
 - Develop school schedules that provide additional instructional time
 - Identify instructional practices to help struggling students

- Identify volunteers, mentors and support groups to motivate, encourage and tutor struggling students

Professional Development: Exposing teachers to innovative research-based strategies with evidence of impact.

GE Engagement: Leveraging GE executive champions, skills and the professional capacity of GE volunteers in meaningful and diverse ways.

Evaluation: American Institutes for Research (AIR) was awarded a \$2 million grant to conduct an evaluation of the College Bound District Program and will document and disseminate findings nationally.

Impact on Getting to Proficiency:

Implementing intervention strategies, aligning curriculum and building community/business/school partnerships will positively impact teaching and learning in the mathematics and science content areas.

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Date:

February 2007